The Transcendental Meditation program

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I think no physician would deny the implications of stress and anxiety in the expression of both mental and physical illness. Every physician should be prepared to search for effective new additions to our therapeutic and preventive armamentarium. One such addition is Transcendental Meditation (TM).

The TM program was introduced into the United States and Canada 17 years ago by Maharishi Mahesh Yogi. Known for 2500 years, TM is a natural mental technique that requires no elaborate yogic positions, paraphernalia or particular environment. It is not a religion or philosophy and no change in lifestyle, dress or diet is required in order to practise TM.

TM is learned in a 10-hour course over a 1-week period, with regular follow-up for the 1st year. The technique must be taught by a qualified instructor, so the physician must refer suitable patients to public courses held in the community.*

TM is practised for 15 to 20 minutes twice daily. The technique does not involve concentration or contemplation, nor is it a form of self-hypnosis. The individual, after settling down comfortably in a chair for 30 seconds or so with the eyes closed, begins freely thinking a specific sound (or mantra). The procedure has a quieting effect on the mind and subjects report deep physical relaxation occurring as a spontaneous byproduct of the mental process.

Scientific research on the technique of TM began 7 years ago. Because instruction and practice of the technique were so well standardized by Maharishi International Academy, the organization teaching the method, large numbers of uniformly trained subjects were available for study. Many studies have outlined the physiologic changes occurring during TM and those occurring in everyday life in individuals practising the technique regularly. A paper by Wallace, Benson and Wilson[1] includes the following observations:

> During meditation, the respiratory changes consisted of decreased oxygen consumption, CO_2 elimination, respiratory rate and minute ventilation with no change in respiratory quotient. Arterial blood pH and base excess decreased slightly; interestingly blood lactate also decreased. Skin resistance markedly increased while systolic, diastolic and mean arterial blood pressure, arterial Po_2 and Pco_2 and rectal temperature remained unchanged. The electroencephalogram showed an increase in intensity of slow alpha wave and occasional theta wave activity. The physiological changes during meditation differ from those during sleep, hypnosis, autosuggestion and characterize a wakeful hypo-metabolic physiologic state.

The integrated physiologic state produced by TM appears to be the opposite of the fight-or-flight response of an anxiety reaction. The study of Wallace and colleagues has been replicated by Corey[2] and by Dhanaraj and Singh.[3]

Electroencephalographic findings of brain wave synchrony and coherence between right and left cerebral hemispheres and anterior and posterior regions of the brain have been reported in the theta, alpha and beta wave frequencies.[1,4,5]

Increased autonomic stability has been demonstrated by decreased spontaneous galvanic responses in skin resistance.[6-8]

Others have reported the following findings: appreciable lowering of the blood pressure in hypertensive patients,[9,10] reduction in the use of alcohol and cigarettes,[11] faster recovery from sleep deprivation,[12] relief of insomnia,[13] return to normal weight in over- or underweight individuals,[14] and improvement in the condition of patients with bronchial asthma.[2,15-17]

Psychologic studies have demonstrated that TM produces a faster reaction time, superior perceptual motor performance and broader comprehension and improves attention span. Educational studies have demonstrated an increased intelligence growth rate and learning ability, more logical thinking and improved academic performance in university and high school. Findings of tests have indicated a decrease in anxiety and a growth of personality with the use of TM.

TM has also been used in research in prison rehabilitation, alcoholism[18] and drug abuse[19] programs and inpatient psychiatric treatment.[20] Although results of many studies reported are preliminary, I have been impressed by the holistic effects of the technique. It is not a panacea for all disorders but is a valuable adjunct to medical therapy. In my practice 75 patients are now using the technique. Their symptoms range from anxiety, depression and insomnia, to hypertension, asthma, irritable colon syndrome and migraines. Subjectively, their symptoms have been relieved and their attitudes towards their condition have improved; particularly, they appreciate that TM involves no medication.

I believe that TM should be considered in the treatment of psychosomatic disorders and any illness associated with stress, and that this technique should be investigated thoroughly as a method of preventive medicine in the general community. Large studies could be carried out easily on the effect of TM on infectious disease and allergies, and on abuse of alcohol, cigarettes and nonprescribed drugs. If there is any method by which individuals can improve their health in addition to preventing disease it warrants thorough investigation.

Finally, for the personal use of the physician, TM provides an easy means of achieving relaxation. Hospital responsibilities and long office hours, not to mention numerous evening meetings, are fatiguing. TM provides a practical way to prepare for the day's activity and to "wind down" at the end of the day. I have found that with regular

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use of TM my interpersonal relations have improved, my sensitivity to the needs of my patients has been enhanced, and my ability to react under stress has improved. In Alberta approximately 65 of my colleagues are using the technique personally.

Maharishi International Academy is a federally registered nonprofit organization; it charges a fee for instruction in the technique of TM.

I would be pleased to supply further information on TM, including a more complete bibliography of research reviewed. A comprehensive book is available on the TM program, coauthored by a Californian psychiatrist-TM teacher.[21]

I hope the information contained in this communication has corrected some of the misconceptions surrounding the TM technique and opened discussion for its possible application in medicine.

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